

Mr. Warren Ewalt
Caterpillar, Inc.
3701 State Road 26 East
Lafayette, IN 47905

Re: **157-11889**
Second Administrative Amendment to
Part 70 157-7594-00044

Dear Mr. Ewalt:

Caterpillar, Inc. was issued a permit on July 13, 1999 for a stationary internal combustion engine manufacturing source. A first Administrative Amendment 157-11363 was issued on October 25, 1999. A letter requesting a change was received on February 14, 2000. This second Administrative Amendment gives the source approval to operate the modification which was approved for construction under Significant Source Modification 157-11970-00044. The changes are as follows with deleted language as ~~strikeouts~~ and new language **bolded**. Pursuant to the provisions of 326 IAC 2-7-11, the permit is hereby administratively amended as follows:

The changes to the descriptive information in Section A.2 and the Facility Description Box in Section D.6 are as follows:

- (g) Three (3) peak shaving diesel generators, identified as EL45016, constructed in January 1995, with a maximum heat input capacity of ~~32.2~~ **42.4** million British thermal units per hour, **total**, exhausting at stack vents W-13 and W-14.
- (n) **Two (2) peak shaving diesel generators, also used as emergency generators, constructed in 1982, one (1) existing in Building R and one (1) existing in building B, maximum heat input capacity: 13.0 million British thermal units per hour, total.**

Conditions D.6.1, D.6.2, D.6.3, D.6.4, D.6.6 are revised to include all five (5) peak shaving diesel generators. There are no new applicable rules. Changes are as follows:

D.6.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The input of diesel fuel to the ~~three (3)~~ **five (5)** peak shaving diesel generators shall be limited to 166 kilogallons per twelve (12) consecutive months. This usage limit is required to limit the potential to emit of NO_x to less than 40 tons per year. As a result of this limit, CO emissions are limited to less than 100 tons per year, PM emissions are limited to less than 25 tons per year, and PM₁₀ emissions are limited to less than 15 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.6.2 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-2]

Pursuant to CP 157-4123, issued January 9, 1995, **and 326 IAC 7-1.1-2** the SO₂ emissions from the ~~three (3)~~ **five (5)** peak shaving diesel generators shall not exceed five tenths (0.5) pound per million British thermal unit heat input.

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for ~~this facility~~ **these facilities**.

D.6.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test ~~this facility~~ **these facilities** by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the ~~facility is~~ **facilities are** in compliance. If testing is required by IDEM, compliance with the NO_x, CO, and PM₁₀ limits specified in Condition D.6.1 and the SO₂ limit specified in Condition D.6.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.6.6 Record Keeping Requirements

(a) To document compliance with Condition D.6.2, the Permittee shall maintain records in accordance with (1) through (6) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.6.1, the Permittee shall maintain monthly records of the amount of diesel fuel used at the ~~three (3)~~ **five (5)** peak shaving diesel generators.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

In addition, the facility description on the quarterly report form for the peak shaving diesel generators is revised as follows:

Facility: ~~Three (3)~~ **Five (5)** peak shaving diesel generators - Section D.6

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

Caterpillar, Inc.
Lafayette, Indiana
Permit Reviewer: MES

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Second Administrative Amendment 157-11889-00044
OP No. T157-7594-00044

If you have any questions on this matter, please contact CarrieAnn Ortolani, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
CAO/MES

cc: File - Tippecanoe County
U.S. EPA, Region V
Tippecanoe County Health Department
Air Compliance Section Inspector - Eric Courtright
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 OPERATING PERMIT OFFICE OF AIR MANAGEMENT

**Caterpillar, Inc.
3701 State Road 26 East
Lafayette, Indiana 47905**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 157-7594-00044	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: July 13, 1999

First Administrative Amendment: 157-11363-00044, issued on October 25, 1999
First Significant Source Modification: 157-11970-00044

Second Administrative Amendment: 157-11889-00044		Pages Affected: 4, 8, 42, 43, and 63
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:	

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

D.2.4 Sulfur Dioxide (SO₂) Emissions and Sulfur Content

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.5 Record Keeping Requirements

D.2.6 Reporting Requirements

D.3 FACILITY OPERATION CONDITIONS - One (1) packaging test cell

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

Compliance Determination Requirements

D.3.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.3 Record Keeping Requirements

D.3.4 Reporting Requirements

D.4 FACILITY OPERATION CONDITIONS - One (1) power module

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

D.4.2 Volatile Organic Compounds (VOC)

D.4.3 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-2]

Compliance Determination Requirements

D.4.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

D.4.5 Sulfur Dioxide (SO₂) Emissions and Sulfur Content

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.6 Record Keeping Requirements

D.4.7 Reporting Requirements

D.5 FACILITY OPERATION CONDITIONS - One (1) dual fuel 3600 test stand

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

Compliance Determination Requirements

D.5.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.3 Record Keeping Requirements

D.5.4 Reporting Requirements

D.6 FACILITY OPERATION CONDITIONS - Five (5) peak shaving diesel generators

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

- (f) One (1) dual fuel 3600 test stand, identified as M523, constructed in March 1994, with a maximum heat input capacity of 15.3 million British thermal units per hour when operating on diesel fuel and 11.0 million British thermal units per hour when operating on natural gas, exhausting at stack vents W-11 (A and B).
- (g) Three (3) peak shaving diesel generators, identified as EL45016, constructed in January 1995, with a maximum heat input capacity of 42.4 million British thermal units per hour, total, exhausting at stack vents W-13 and W-14.
- (h) One (1) sound attenuation test stand, identified as M528, constructed in February 1996, with a maximum heat input capacity of 17.0 million British thermal units per hour when operating on diesel fuel and 17.0 million British thermal units per hour when operating on natural gas, exhausting at stack vent W-12A.
- (i) One (1) product paint booth, identified as M751, constructed in 1979, equipped with electrostatic airless spray guns and dry filters for overspray controls, exiting at stack W-1, capacity: 15 engines per hour.
- (j) One (1) touch-up spray paint booth, identified as M775, constructed in 1979, equipped with electrostatic airless spray guns and dry filters for overspray controls, exiting at stack W-2.
- (k) One (1) product paint booth, identified as W-3, constructed in 1979, which will be taken out of service in 1999 when the new product paint booth, also identified as W-3, is installed, equipped with electrostatic airless spray guns and dry filters and a water wash system for overspray controls, capacity: 1.25 to 5.0 engines per hour.
- (l) One (1) product paint booth, identified as W-3, to be constructed in 1999, equipped with electrostatic airless spray guns and dry filters and a water wash system for overspray controls, capacity: 5 engines per hour.
- (m) One (1) product paint booth, identified as W-33, to be constructed in 1999, equipped with electrostatic airless spray guns and dry filters for overspray controls, capacity: 5 engines per hour.
- (n) Two (2) peak shaving diesel generators, also used as emergency generators, constructed in 1982, one (1) existing in Building R and one (1) existing in building B, maximum heat input capacity: 13.0 million British thermal units per hour, total.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment.
- (b) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

- (c) Other activities or categories with emissions equal to or less than the insignificant activity thresholds:

SECTION D.6

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (g) Three (3) peak shaving diesel generators, identified as EL45016, constructed in January 1995, with a maximum heat input capacity of 42.4 million British thermal units per hour, total, exhausting at stack vents W-13 and W-14.
- (n) Two (2) peak shaving diesel generators, also used as emergency generators, constructed in 1982, one (1) existing in Building R and one (1) existing in building B, maximum heat input capacity: 13.0 million British thermal units per hour, total.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The input of diesel fuel to the five (5) peak shaving diesel generators shall be limited to 166 kilogallons per twelve (12) consecutive months. This usage limit is required to limit the potential to emit of NO_x to less than 40 tons per year. As a result of this limit, CO emissions are limited to less than 100 tons per year, PM emissions are limited to less than 25 tons per year, and PM₁₀ emissions are limited to less than 15 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.6.2 Sulfur Dioxide (SO₂) Limitations [326 IAC 7-1.1-2]

Pursuant to CP 157-4123, issued January 9, 1995, and 326 IAC 7-1.1-2 the SO₂ emissions from the five (5) peak shaving diesel generators shall not exceed five tenths (0.5) pound per million British thermal unit heat input.

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

Compliance Determination Requirements

D.6.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the NO_x, CO, and PM₁₀ limits specified in Condition D.6.1 and the SO₂ limit specified in Condition D.6.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.6.5 Sulfur Dioxide (SO₂) Emissions and Sulfur Content

Compliance with Condition D.6.2 shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed the limits contained in Condition D.6.2 by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
- (A) Oil samples may be collected from the fuel tank immediately after the fuel

tank is filled and before any oil is combusted; and

- (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the one (1) peak shaving diesel generator, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.6 Record Keeping Requirements

- (a) To document compliance with Condition D.6.2, the Permittee shall maintain records in accordance with (1) through (6) below.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.6.1, the Permittee shall maintain monthly records of the amount of diesel fuel used at the five (5) peak shaving diesel generators.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.6.1 shall be submitted to the address(es) listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Caterpillar, Inc.
Source Address: 3701 State Road 26 East, Lafayette, Indiana 47905
Mailing Address: 3701 State Road 26 East, Lafayette, Indiana 47905
Part 70 Permit No.: T 157-7594-00044
Facility: Five (5) peak shaving diesel generators - Section D.6
Parameter: NO_x; fuel usage
Limit: 166 kilogallons of diesel fuel per twelve (12) consecutive months.
NO_x emissions to less than 40 tons per year, CO emissions to less than 100 tons per year, PM emissions to less than 25 tons per year, and PM₁₀ emissions to less than 15 tons per year

YEAR: _____

Month	This Month	Previous 11 Months	12-Month Total
	Diesel fuel usage (kgal)	Diesel fuel usage (kgal)	Diesel fuel usage (kgal)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:

Title / Position: _____

Signature: _____

Date: _____

Phone: _____